

White Boards Activity:

Graph and **tell what transformation occurs!**

$$y = \sqrt{x+5}$$

$$y = a\sqrt{x-h} + k$$

This function shifted 5 units to left from Parent.

$a = 1$
 $k = 0$
 No y-shift
 $h = -5$ (Shift 5 units to left)

Oct 10-10:59 AM

Oct 10-11:02 AM

$$y = \sqrt{x} - 2$$

$$y = a\sqrt{x-h} + k$$

This function shifted two units down.

$a = 1$
 $h = 0$
 $k = -2$

Oct 10-11:03 AM

$$y = 3 + \sqrt{x}$$

$$y = a\sqrt{x-h} + k$$

This function shifted 3 units UP.

$a = 1$
 $h = 0$
 $k = 3$

Oct 10-11:03 AM

$$y = \sqrt{x} + 4$$

UP 4 Units

Oct 10-11:03 AM

$$y = -2\sqrt{x+2}$$

$$y = a\sqrt{x-h} + k$$

$a = -2$ (Stretch)
 $h = -2$
 $k = 0$
 Reflection around x-axis
 Shifted 2 units to left.

Oct 10-11:04 AM

$$y = \frac{1}{2}\sqrt{x+1} + 4$$

$$y = a\sqrt{x-h} + k$$

$$\left| \begin{array}{l} a = \frac{1}{2} \\ h = -1 \\ k = 4 \end{array} \right.$$

$$a = \frac{1}{2} < 1 \text{ (compress)}$$

shifted 1 unit left
and 4 units up.

Oct 10-11:04 AM

$$y = \sqrt{x-4} - 2$$

Oct 10-11:05 AM

$$y = 4\sqrt{x-2} - 1$$

Oct 10-11:05 AM

$$y = \sqrt{x-2}$$

Oct 10-11:06 AM

$$y = \sqrt{x+4}$$

Oct 10-11:06 AM